B R E V I O R A

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NEW SPECIES OF LAND MOLLUSKS FROM THE REPÚBLICA DOMINICANA

By

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We are deeply indebted to Drs. Stanley Rand, Clayton Ray and Juan Rivero for two important collections of land mollusks collected in the República Dominicana. Both collections were made in areas hitherto unknown as far as the land mollusks were concerned. Of the four species herein described, two represent a subfamily and a genus not previously known from Hispaniola. Probably one-third of the species are known only from their type localities, the remaining two-thirds from a very few localities. For this reason it is impossible to give significant distributional patterns of any one species, and but few generic patterns. Our present knowledge of the land and freshwater mollusks of Hispaniola is probably only about ten percent, compared with that of Cuba. Much of this is due, of course, to the fact that there are no local interested persons in Hispaniola. Cuba has had a host of highly trained naturalists, such as Juan Gundlach, Charles Wright, Filip Poey, Rafael Arango, Carlos de la Torre, P. J. Bermudez and C. G. Aguayo. All have made extensive collecting trips throughout most of Cuba and their interest stimulated many others to collect. As a consequence, there are comparatively few areas in Cuba where the fauna still remains unknown. Conversely, Hispaniola has had none of the local stimulation, and what is known of the area has been gathered by outsiders on a few expeditions such as those made by Auguste Sallé in 1847-1851, D. F. Weinland in 1857, Justus Hjalmarson in 1858, Paul Bartsch in 1917, 1920, and 1929, W. J. Eyerdam in 1927, C. R. Orcutt in 1929-1930, D. C. Pease in 1932 and W. J. Clench, R. A. McLean and H. D. Russell in 1937. Many others have contributed material, much of it secondary to other zoological or botanical pursuits (see Crosse 1891, and Bartsch

1946). There remains much territory on this island about which nothing is known, particularly the central mountain system, the Cordillera Central.

HELICINIDAE

Helicina juliae, new species

Plate 1, figure 2

Description. Shell reaching 8 mm. in greater diameter, imperforate, subglobose, smooth and shining. Color a bright pea-green to yellow with the first 1½ post-nuclear whorls with a broad band of brownish purple, as well as a peripheral band of the same color. Columellar area white and occasionally margined with blue. There may be one or more axial bands which occur only from the peripheral band to the suture above. Whorls 4 and convex. Spire depressed and obtuse. Aperture subtriangular in shape. Outer lip reflected, white, and with a moderate depression behind. Parietal area thinly glazed. Columella very short. Sculpture consisting of very fine growth lines.

Height	Width	
5.5 mm.	8.0 mm.	Holotype
5.1 mm.	7.0 mm.	Paratype

Types. The holotype is in the Museum of Comparative Zoology, no. 168267, from Colonia Ramfis, 20 km. W of San Cristobal, República Dominicana. Dr. Juan Rivero collector, March 1957. Paratypes from the same locality in the Museum of Comparative Zoology and the Academy of Natural Sciences of Philadelphia.

Remarks. This species differs from *Helicina viridis* Lamarck to which it is probably related, by being much smaller and by having several color phases in addition to the axial brown line or lines which extend from the peripheral band to the suture above. *H. viridis* reaches 14 mm. in width and 9.5 mm. in height and is a pure pea-green in color. The two species are the same in shell outline.

Proserpina marcanoi, new species

Plate 1, figure 3

Description. Shell reaching 4.7 mm. in width, depressed, imperforate, smooth and shining. Color a light whitish green. Whorls 5 and convex. Spire depressed. Aperture semicircular.

Outer lip simple. Parietal wall glazed and supporting a high and thin lamella. Columella short and supporting a second lamella which is about one-third as high as the parietal lamella. Umbilical area slightly depressed. Suture defined but not impressed. Sculpture consisting of exceedingly fine growth lines.

Height	Width	
2.4 mm.	4.7 mm.	Holotype
2.2 mm.	4.4 mm.	Paratype
2.1 mm.	4.3 mm.	"

Types. The holotype is in the Museum of Comparative Zoology, no. 188911, from Colonia Ramfis, 20 km. W of San Cristobal, República Dominicana. Two paratypes are in the Museum of Comparative Zoology from the same locality. Dr. Juan Rivero collector, March 1957.

Remarks. This is the first species of the Proserpininae to be recorded from Hispaniola. The subfamily has been known elsewhere only from Jamaica and Cuba. In relationship, it appears to be nearest to *P. depressa* d'Orbigny, a species which is widely distributed in Cuba. It differs from *depressa* by being smaller in size, proportionally higher, and in having a columellar lamella nearly twice as high as the Cuban species.

This species is named for Eugenio Marcano of the Instituto de Investigaciones Botanicas y Zoologicas de la Universidad de Santo Domingo, who collected with Dr. Juan Rivero when he was at Colonia Ramfis in March 1957.

TRUNCATELLIDAE

GEOMELANIA (MERRILLIANA) RIVEROI, new species

Plate 1, figure 4

Description. Shell reaching 7.6 mm. in height (truncated), extended, imperforate and strongly sculptured. Color a dull white. Whorls 8 and moderately convex. Aperture holostomatous and attached to the body whorl. Parietal and palatal lips reflected. Columella short and slightly oblique. Suture impressed. Sculpture consisting of numerous axial costae with exceedingly fine spiral threads between the costae. Operculum unknown.

Height	Width	
7.6 mm.	2.0 mm.	Holotype

Types. The holotype is in the Museum of Comparative Zoology, no. 230505, from Colonia Ramfis, 20 km. W of San Cristobal, República Dominicana, collected by Dr. Juan Rivero in March 1957.

Remarks. This is the second known species of *Geomelania* from Hispaniola. It differs from *Geomelania haitiensis* Weinland in being twice as large and in having the axial sculpture coarser and by having 8 whorls, *G. haitiensis* having only 5. In relationship, it appears nearest to *Geomelania elongata* Pfeiffer from Oriente, Cuba, and differs from it by being a little larger, having one more whorl and in being a little more coarsely sculptured.

SAGDIDAE

ZAPHYSEMA RANDI, new species

Plate 1, figure 1

Description. Shell large, reaching 67 mm. in height, smooth, rather thin and globose. Color probably a yellowish brown. Whorls $4\frac{1}{2}$ and strongly convex. Outer lip simple, parietal wall with a thin glaze. Suture slightly indented. Columella long, sinuous and somewhat oblique. Sculpture consisting of very fine axial growth lines.

Height	Width	
65.0 mm.	67.0 mm.	Holotype
67.0 mm.	67.5 mm.	Paratype

Types. The holotype is in the Museum of Comparative Zoology, no. 230503, from Cueva de San Francisco, Cerros de San Francisco, Mun. Pedro Santana, San Rafael, República Dominicana. Collected by Stanley Rand and Clayton Ray, August 1958. There is single paratype from the same locality.

Remarks. This species is placed provisionally in the genus *Zaphysema*, a genus heretofore known only from Jamaica and Navassa islands. It is about three times as large as the largest Jamaican species, *Zaphysema macmurrayi* C. B. Adams. Both specimens were dead when found in the cave and appear to be quite old as they are white and completely devoid of periostracum.

This species is as large as the largest *Polydontes gigantea* Scapoli from Hispaniola and *Zachrysia petitiana* d'Orbigny from the Trinidad Mountains of Cuba. Its large size and thinner shell makes it more capacious than either of these two species.

This is by far the largest species in the family Sagdidae, a family which occurs in the West Indies, southern United States,[1] and south through Central America and northern South America. Its greatest generic development is centered in the island of Jamaica.

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[1] A single genus, *Microphysula*, with two species, *ingersolli* Bland and *cookei* Pilsbry extends north through the Rocky Mountain states to southern British Columbia.